

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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TABLE NO: \_\_\_\_\_

# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 2, 2016/2017

**TIS2351/THI3461 – HUMAN COMPUTER INTERACTION**  
(All sections / Groups)

9<sup>th</sup> MARCH 2017  
2.30 PM – 04.30 PM  
(2 Hours)

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### INSTRUCTIONS TO STUDENTS

1. This question paper consists of 10 pages with 4 Sections only.
2. Attempt ALL questions in **PART A, PART B, PART C and PART D**.  
The distribution of the marks for each question is given.
3. Please write all your answers in the answer box associated with each question in this question paper.

**PART A - TRUE/FALSE (10 MARKS)**

Write down your answer in the answer box provided. (Write T or F).

- |   | <b>Answer</b>        |
|---|----------------------|
| Q1) Interaction design is concerned with designing interactive products to support the way people communicate and interact in their everyday and working lives.     | <input type="text"/> |
| Q2) Interaction design is multidisciplinary, involving many inputs from wide-ranging disciplines and fields.  | <input type="text"/> |
| Q3) It is important to have a good understanding of the problem space, specifying what it is you are doing, why, and how it will support users in the way intended. | <input type="text"/> |
| Q4) The process of articulating the problem space is typically done as an individual effort.  | <input type="text"/> |
| Q5) Each planned data gathering session should be tested by running a pilot study.  | <input type="text"/> |
| Q6) Open questions require the interviewee to select from a limited range of options.   | <input type="text"/> |
| Q7) The kind of data analysis that can be done depends on the data gathering techniques used.   | <input type="text"/> |
| Q8) There are three different kinds of average: mean, mode and median.  | <input type="text"/> |
| Q9) Usability criteria, technical feasibility, and users' feedback on prototypes cannot be used to choose among alternatives.                                       | <input type="text"/> |

**To be continued...**

- Q10) User-centered design rests on three principles: overdue focus on users and tasks, empirical measurements, and non-repetitive design.

**Answer****PART B – MULTIPLE CHOICE QUESTIONS (10 MARKS)**

Write down your answer in the answer box provided. (Write A, B, C or D).

- Q1) The following are pre-requisite to understanding problem space EXCEPT \_\_\_\_\_:
- A) Identifying Usability.
  - B) Identifying UX Goals.
  - C) Make explicit assumptions and claims.
  - D) Make implicit assumptions and claims.

**Answer**

- Q2) Assumption and claim can best be described as \_\_\_\_\_:
- A) State or assert that something is the case, typically without providing evidence or proof.
  - B) Guideline on how to design the steps, questions, concepts, challenges, principles, tactics and dimensions.
  - C) A driving force that frames research and development.
  - D) A simplification of an HCI phenomenon that is abstracted from a theory.

- Q3) Cognitive processes are important in Human Computer Interaction because it \_\_\_\_\_:
- A) Takes into account social processes involved and emotional limitations of users.
  - B) Restrict theories, modelling tools, guidance and methods that can lead to the depreciation of products.
  - C) Provides knowledge about what products can and cannot be expected to do.
  - D) Identifies and explains the nature and causes of problems users encounter.

**To be continued...**

Answer

- Q4) According to the design implications of attention, designers need to consider the following aspects EXCEPT \_\_\_\_\_:
- A) Avoid cluttering the interface with too much information.
  - B) Use techniques that make things stand out like color, ordering, spacing, underlining, sequencing and animation.
  - C) Sounds should be audible and distinguishable.
  - D) Make information salient when it needs attending to.
- Q5) Examples of implicit cues in conversation are follows EXCEPT \_\_\_\_\_:
- A) Fidgeting with coat and bags.
  - B) Saying Hi to a friend in the airport.
  - C) Looking at watch.
  - D) Using hand signals/gestures during exams.
- Q6) Co-presence technologies involves the following EXCEPT \_\_\_\_\_:
- A) Superimpose workspace.
  - B) Physical coordination.
  - C) Shareable interfaces.
  - D) Awareness.
- Q7) The difference between flat menus and expanding menus is that \_\_\_\_\_:
- A) Expanding menus enables more options to be shown on a single screen than is possible with a single flat menu.
  - B) Flat menus are more flexible navigation, allowing for selection of options to be done in the same window.
  - C) Expanding menus are good at displaying a small number of options at the same time and where the size of the display is small.
  - D) Flat menus enables cascading navigation.

To be continued...

Answer

- Q8) The following sentence BEST describes virtual reality as one of the interfaces types EXCEPT:
- A) Virtual reality provides similar viewpoints for the 1st person.
  - B) Virtual reality induces a sense of presence where someone is totally engrossed by the experience.
  - C) Virtual reality offers head-mounted displays that uncomfortable to wear, can cause motion sickness and disorientation.
  - D) Virtual reality allows lower level of fidelity with objects they represent compared to multimedia.
- Q9) Essential use cases are developed because \_\_\_\_\_:
- A) Scenarios are not concrete stories.
  - B) They represent more general cases than a scenario.
  - C) They represent certain assumptions.
  - D) Scenarios and use cases are narrative and structured assumptions.
- Q10) The following examples for interaction design requirement are FALSE EXCEPT:
- A) Functional requirement - A lunch box delivery service of mobile-app must have efficient communication infrastructure to support users.
  - B) Data requirement - A share-dealing application must have up-to-date and accurate data.
  - C) Social requirement - A cab-sharing service via mobile app must have Wi-Fi connections.
  - D) Technical requirement - A robot working in a car assembly plant should be able to accurately place and weld the correct pieces of metal.

To be continued...

**PART C - FILL IN THE BLANKS (10 MARKS)**

Fill in the blanks with words that best describes the application of human-computer interaction concepts as a whole.

In Human Computer Interaction, feasibility and user acceptance can be tested by using Q1) \_\_\_\_\_ and Q2) \_\_\_\_\_. High fidelity prototyping may be Q3) \_\_\_\_\_ or Q4) \_\_\_\_\_. Low fidelity prototypes are quick and easy to use and are used in the Q5) \_\_\_\_\_ stages of design. Q6) \_\_\_\_\_ is an example of low fidelity prototyping that relies on hand-drawn sketches. Another example is called as the Q7) \_\_\_\_\_, where the user interacts with the software as though interacting with the product. Finally, Q8) \_\_\_\_\_ is another example of low fidelity prototyping that consists of series of sketches showing how a user might progress through a task using the product under development. Prototyping comes in five different filtering dimensions; namely, Q9) \_\_\_\_\_, data, functionality, Q10) \_\_\_\_\_ and spatial structure.

**Answer:**

- Q1) \_\_\_\_\_ (one word)
- Q2) \_\_\_\_\_ (one word)
- Q3) \_\_\_\_\_ (one word)
- Q4) \_\_\_\_\_ (one word)
- Q5) \_\_\_\_\_ (one word)
- Q6) \_\_\_\_\_ (one word)
- Q7) \_\_\_\_\_ (three words)
- Q8) \_\_\_\_\_ (one word)
- Q9) \_\_\_\_\_ (one word)
- Q10) \_\_\_\_\_ (one word)

**To be continued...**

**PART D - STRUCTURED (10 MARKS)**

**Write down your answer in the answer box provided.**

Read the paragraph and answer the questions:

A group of Human-computer Interaction researchers from Multimedia University is planning to build StoryKit, a mobile application for creating and sharing audio-visual stories (as shown in Figure 1). Their initial goal is to support children making stories together with older adults as a form of informal learning. To that end, it lets users create books on the touchscreen device by arranging their text, photos, drawings, and sounds on pages, and then sharing them via e-mail and the web.



Figure 1. StoryKit mobile app.

Develop hand-drawn sketches to demonstrate the list of functional requirements as follows:

- 1a) The user is able to manage story bookshelf (2 marks).
- 1b) The user is able to read and edit story (2 marks).
- 1c) The user is able to share pages of storybook with other users (2 marks).
- 1d) The user is able to arrange text, photos, drawings, and sounds on storybook pages (2 marks).
- 1e) The user is able to share the story via email and web (2 marks).

**To be continued...**

**Answer**

1a) The user is able to manage story bookshelf (2 marks)

1b) The user is able to read and edit story (2 marks).

To be continued...



**Answer**

1c) The user is able to share pages of storybook with other users (2 marks).

1d) The user is able to arrange text, photos, drawings, and sounds on storybook pages (2 marks).

**To be continued...**

**Answer**

1e) The user is able to share the story via email and web (2 marks).

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